Claims 1-3

The Examiner has rejected claim 1 and dependent claims 2-3 as obvious in light of Stevens et al '099. However, Stevens et al '099 does not teach or suggest the features of claim 1.

Claim 1 is directed to a method for processing envelopes in which three sides of the envelope are cut open. As discussed in the application, cutting open the envelopes allows the documents to be extracted from the envelope, so that the documents can be further processed.

Ordinarily, it is desirable to set the depth of cut to the thinnest cut possible to prevent cutting the documents inside the envelope. However, one or more of the corners of the envelope may be bent over. If the bend is wider than the depth of cut, the bent corner will not be severed. For instance, ordinarily the top and bottom edges of an envelope are cut, along with the leading edge, so that the trailing edge is the only edge holding the envelope faces together. However, if the corners of the envelope at the leading edge are bent over, then the corners will not be severed. Therefore, the envelope will be held together by the front corners and the trailing edge. This may prevent the contents from being properly extracted from the envelope.

To ensure that the corners are cut off, the depth of cut of the three cutters can be increased. However, doing so increases the risk of severing the enclosed documents. To overcome these problems, Applicants methodology cuts two of the edges with a thin or feather cut, and one of the edges with a thick cut. Specifically, preferably the top and bottom edges are cut with a feather cut and the leading edge is cut with a thick cut. By doing so, it is unlikely that the feather cut to the top and bottom edges will cut the enclosed documents. The leading edge is then cut with a thick cut to ensure that the corners are severed. In this way, Applicants' methodology ensures that the envelope is severed along all three edges, while minimizing the likelihood of

severing any of the documents.

The Official Action recognizes that Stevens et al '099 does not teach or suggest setting the depth of cut of the third edge to be greater than the depth of cut of the first and second edges. However, the Official Action states that it would be obvious to modify the depth of cut of the third edge because the depth of cut can be greater if the size of the envelope is greater than the size of the documents.

This does not show any motivation to modify Stevens et al '099 as suggested by the Examiner. Frequently, documents are smaller than the envelope. For instance, when paying a telephone bill, the check is normally much smaller than the envelope. When processing such envelopes it is still desirable to use a minimum depth of cut because the check could be located anywhere in the envelope. Therefore, if a thick depth of cut is used, it is possible that the check can be severed. For this reason, regardless of the document size, the prior art has used a thin cut on all three edges to ensure that the document is not severed.

Accordingly, the prior art has already addressed the Examiner's hypothetical situation, and it has processed such envelopes by using the same standard cutting: namely cutting all three edges as thin as possible to minimize the chance of severing a document. The prior art has not provided any suggestion of altering the cutting methodology as in Applicants' claim 1, so that claim 1 is patentable over Stevens et al '099.

Claims 14-19, 48-53 and 64-70

The Official Action erroneously indicates that Stevens et al '099 anticipates independent claim 14 along with dependent claims 15-19 and 48-53, and independent claim 64 along with dependent claims 65-70. As discussed further below, claims 14 and 64 recite singulation of three documents. In contrast, Stevens et al '099

is not directed to singulating three documents, and does not have the capacity to singulate three documents. Accordingly, Applicants request that the Examiner reconsider the rejection of claims 14 and 64, along with dependent claims 15-19, 48-53 and 65-70.

Stevens et al '099 is directed to an automated mail processing device. The device is configured to process singles transaction, which include a single invoice and a single check. To ensure that only envelopes having singles transactions are processed, the device scans the envelopes for certain criteria and then outsorts envelopes that may require special handling. See col. 7, lines 32-63 and col. 8 lines 55-60.

The envelopes that are qualified for extraction are then opened and the documents are extracted. The extracted documents are then conveyed to a separation station 31 to singulate the documents. See col. 8 line 66 - col. 9 line. However, the separation station 31 is only operable to separate two documents from one another. Specifically, the separation station 31 includes a pair of drums 508, 509. The first drum 508 has a higher coefficient of friction than the second drum 509. The two documents are conveyed in face to face relation between the drums 508, 509 so that the first document engages the friction drum 508 and the second document engages the retard drum 509.

While the documents are between the two drums, the friction drum 508 rotates clockwise and the retard drum 509 rotates counter-clockwise. In this way, the friction drum 508 drives the first document forwardly away from the singulator. The interface between the two documents is a paper to paper interface, which has a relatively low coefficient of friction, which is less than the frictional interface between the second document and the retard drum 509. Therefore, the friction between the documents is insufficient to drive the second document forward with the first document.

Instead, the retard drum 509 holds back the second document when the friction drum 508 drives the first document forward. After the first document is conveyed away from the friction drum 508, the friction drum engages the second document, and drives it forwardly behind the first document.

The Stevens et al '099 device would not properly singulate three documents in face to face relation. The first document would engage the friction drum 508, the third would engage the retard drum 509 and the second document would be between the first and third documents. When the friction drum 508 drives the first document forwardly, the frictional force between the first document and the second document would tend to urge the second document forwardly along with the first document. Since the second document does not engage the retard drum, the only frictional force to hold back the second document is the frictional force between the second and third document. This is normally not sufficient to hold back the second document, so that the second document would be driven forwardly along with the first document. Therefore, the first and second documents would not be separated, which would cause subsequent processing problems.

In summary, the separation station disclosed in Steven et al '099 is not operable to singulate three or more documents at a time. Since Stevens et al '099 is directed toward processing pairs of documents there is no teaching or suggestion in Stevens et al '099 of a motivation to modify the separation station to accommodate three documents at a time. Therefore, there is no teaching or suggestion in Stevens et al '099 of "a singulator operable to singulate three extracted documents in face to face relation and serially feed the documents along a document path", as recited in claim 14. Similarly there is no teaching or suggestion of "singulating . . . three extracted documents and serially feeding the documents along a document path", as recited in claim 64. Accordingly, Applicants request that the Examiner reconsider the rejection of claims 14 and 64, along with dependent claims 15-19, 48-53 and 65-70.

Claims 33-40

The Official Action erroneously indicates that claim 33 and dependent claims 34-40 are anticipated by Stevens et al '099. Claim 33 recites the steps of severing a document into first and second portions while the document is in an envelope, and then extracting the first and second document portions and singulating the first and second document portions. As discussed further below, Stevens et al. '099 does not teach or suggest any of these steps. Accordingly, Applicants request that the Examiner reconsider the rejection of claim 33 and dependent claims 34-40.

The Official Action simply states that Stevens et al '099 anticipates claims 33-40. The Official Action does not mention the steps in claims 33-40 and there is no discussion of where Stevens et al '099 teaches the features of the claims. Accordingly, Applicants are unable to assess the basis of this rejection. Nonetheless, as discussed further below, there is no teaching or suggestion in Stevens et al. '099 of severing documents in envelopes and then processing the document portions. Accordingly, claims 33-40 are patentably distinct from Stevens et al. '099.

As discussed in Applicants' application, in certain instances it may be desirable to cut documents into document portions and then process the document portions. See pages 41 to 43 of the present application. For instance, folded documents are normally inappropriate for automated processing because the folded documents cannot be properly scanned, and may buckle when they are transported, thereby causing a jam. Therefore, if an envelope is scanned and it is determined that the envelope contains a folded document, the envelope will normally be outsorted and processed by hand. See Stevens et al. '099 col. 17 lines 54-56.

Instead of rejecting envelopes having such folded documents, Applicants methodology provides for automatically processing the documents by severing the documents in an envelope and then extracting the severed portions. The severed

portions are then monitored to ensure that the document portions remain associated with one another. Since Stevens et al' '099 simply outsorts such folded documents and does not describe severing a document into pieces and then processing the pieces, there is no teaching or suggestion of the methodology claimed in claims 33-40. Accordingly, Applicants request that the Examiner reconsider the rejection of independent claim 33 and dependent claims 34-40.

Claims 54-63

The Official Action erroneously claims that claims 54-63 are anticipated by Stevens et al. '099. Independent claims 54 and 64 are directed to the feature of Applicants' apparatus and methodology in which the thickness of an envelope is measured and the feeding of a subsequent envelope is controlled in response to the measured thickness. Nothing in Stevens et al '099 teaches or suggests controlling the feeding of envelopes in response to the thickness of a preceding envelope. Stevens et al . '099 simply feeds the envelopes at a constant feed rate and outsorts envelopes if they have a thickness outside a defined range. Accordingly, Applicants request that the Examiner reconsider the rejection of claims 54-63.

As discussed in the application, one of the features of Applicants' apparatus and methodology is the ability to process mail having differing numbers of documents in the different envelopes. After the mail is opened, the documents are extracted and then separated. To process the documents efficiently, it is desirable to minimize the gaps between the documents. At the same time, there should be adequate space in the flow of documents for each document to be serially conveyed after it is extracted.

For instance, if an envelope has two documents, the next envelope should be delayed a sufficient amount to allow a gap in the flow for accommodating the two documents after they are separated. In contrast, if a document has ten documents,

then subsequent envelope must be delayed longer to allow a gap in the flow of documents to accommodate all ten documents after they are separated. It may be possible to set the feed rate of the envelopes at a rate sufficient to ensure adequate gaps for the maximum number of documents anticipated in a single envelope. However, doing so significantly increases the gaps between the documents since there will be unnecessarily large gaps between documents when there are fewer documents in an envelope. These unnecessary gaps significantly reduces the throughput rate of the mail (i.e. The mail would be processed slower than necessary).

To minimize the gaps between documents and provide adequate gaps, Applicants' apparatus measures the thickness of an envelope after it is fed from an input bin. Based on the thickness the apparatus may estimate the number of documents that are in the envelope and determine an appropriate gap to accommodate the anticipated number of documents. The feeding of the next envelope from the input bin is then controlled to provide the appropriate gap.

Referring now to the claims, claim 54 recites a thickness detector for detecting the thickness of a leading piece of mail, and a system controller operable to control a feeder to feed a trailing piece of mail in response to the detected thickness of the leading piece of mail to maintain the proper spacing between the leading piece of mail and the trailing piece of mail. Similarly, claim 57 recites a method including the step of measuring the thickness of a leading piece of mail and determining the gap necessary between the leading piece of mail and the trailing piece of mail based on the measured thickness of the leading piece of mail. The method further includes the step of controlling the feeding of a trailing piece of mail to provide the determined gap.

The Official Action does not address the features of claims 54-63 so that Applicants are not able to adequately assess the bases of the rejection. Nonetheless, since nothing in Stevens et al. '099 teaches or suggests the features in claims 54-63 as

discussed above, claims 54 and 57 are patentable over Stevens et al '099, along with dependent claims 55-56 and 58-63. Therefore, Applicants request that the Examiner reconsider the rejection of claims 54-63.

In light of the foregoing, Applicant believes that this application is in form for allowance. The Examiner is encouraged to contact Applicant's undersigned attorney if the Examiner believes that issues remain regarding the allowability of this application.

Respectfully submitted,

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CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

I hereby certify that this Response and accompanying papers are being deposited on **April 5, 2002** with the United States Postal Service as first-class mail in an envelope properly addressed to COMMISSIONER OF PATENTS AND TRADEMARKS, Washington, DC 20231

April 5, 2002
Date of Certificate

_____
Stephen H. Eland
PTO Registration No. 41,010

Petition for Extension Under 37 CFR §1.136(a)

Applicant's undersigned attorney hereby petitions for an extension of time of 1 month(s) beyond the time period set in the last office communication. The proper fee is enclosed as identified in the enclosed Fee Transmittal form.

April 5, 2002
Date of Certificate

Stephen H. Eland
PTO Registration No. 41,010

ATTACHMENT A

39. The method of claim 38 ~~36~~ wherein the step of correlating the image data comprises combining the image data for the two portions into a single image data file.